

# Crash Tests

## New Car Safety

### HOLDEN COMMODORE VX

2000 on

Driver airbag

#### Overall Evaluation



Overall score

17.14 out of 34

Variant: Executive Sedan. Engine: V6 Cyl. 3.5 litre. Auto  
Kerb weight: 1560 kg Category: LARGE/MEDIUM CAR  
Vehicles built: 10/00

#### Safety features

A driver's airbag is standard equipment. A passenger front airbag is optional but was not fitted to the tested vehicles. Side airbags are standard on some variants and optional on others but were not fitted to the tested vehicles.

The front seat belt buckles are mounted on the seats and the upper anchorages are adjustable. These features improve the fit of the seat belt. Pretensioners are fitted to front seat belts to reduce slack in the event of a severe crash. The centre rear seat has a 3-point seat belt.

In a severe crash several emergency mode features are activated - fuel pump and engine are turned off, doors unlock and the dome light turns on.

#### OVERALL EVALUATION : 3 Stars

The HOLDEN COMMODORE VX performed marginally in the offset crash test (score 3.77 out of 16). The passenger compartment held its shape reasonably well but there was a moderate risk of serious head injury for the driver. Lower leg protection was poor for the driver.

The vehicle performed better in the side impact crash (score 13.37 out of 16).

#### FRONTAL OFFSET CRASH TEST

The passenger compartment held its shape reasonably well in the offset crash test. The front part of the driver's floor was pushed rearwards 150mm and was folded under the driver's foot. The brake pedal moved rearwards 140mm. The dash moved 80mm towards the driver. The roof buckled upwards slightly above the driver and the width of the driver's doorway shortened by 50mm. All doors remained closed during the crash. After the crash tools were required to open the driver's door.

The airbag started to cushion the head of the driver but the steering column suddenly moved upwards and contributed to the driver's forehead striking the steering wheel through the airbag. There was a moderate risk of serious head injury. During rebound the back of the driver's head hit the centre pillar. The passenger was well restrained but chest loads were high. The sharp, stiff steering column adjuster bracket poses a hazard to both knees of the driver.

#### SIDE IMPACT CRASH TEST

The centre pillar and the side doors were pushed inwards substantially. The driver's seat was pushed sideways but the seat anchorages held.

The back of the driver's head glanced the centre pillar. Rebound was well controlled.

The vehicle was not eligible for a Pole Impact Test since it did not have head-protecting side airbags. This test can earn eligible



Offset crash test at 64km/h

vehicles an extra two points, giving a maximum possible overall score of 34 points.

#### INJURY MEASUREMENTS

Refer to the information sheet "How the test are done"	Offset Crash Test at 64km/h		Side Impact Crash Test at 50km/h
	Driver	Passn	Driver
Head HIC	537	382	138
Acceleration (g for 3ms)	84.3	50	44.8
Neck - Shear (kN)	1.1	1.23	-
Tension (kN)	1.54	1.99	-
Extension (Nm)	20.74	28.18	-
Chest Accln (g for 3ms)	46.5	45.7	-
Compression (mm)	39.9	44.1	31.72
Viscous criterion (m/s)	0.13	0.16	0.72
Abdomen - Force (kN)	-	-	1.104
Pelvis - Force (kN)	-	-	2.12
Upper legs Force Left	0.23	0.29	
(kN) Right	0.95	0.1	
Knee displ (mm) Left	0	0.72	
Right	0.81	0.96	
Lower legs Force Left	2.44	1.14	
(kN) Right	1.8	1.13	
Index (Upper/Low) Left	0.52/0.41	0.33/0.11	
Right	0.34/1.3	0.48/0.26	

#### Modifiers for offset test scores

Head		No penalty
Chest		No penalty
Upper legs	Variable & conc. loading	2 pt penalty L & R
Lower legs		No penalty
Foot score	Brake pedal movement	Score 2.32

#### Pedestrian rating:



13.87 points out of 36 (38.5%).

Child head impacts 7.87 points; adult head impacts 6 points; upper leg and lower leg impacts zero points.



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